

Help us improve CiteSeer. [Take a survey](#)

An Empirical Comparison of Static Concurrency Analysis Techniques (1996) [\(Make Corrections\)](#) [\(25 citations\)](#)

A.T. Chamillard Lori A. Clarke George S. Avrunin Computer Science Department...

View or download:

umass.edu/pub/techreports/UMCS1996084.ps

umass.edu/~avrunin/recent_pubs/comparison.ps.gz

Cached: [PS.gz](#) [PS](#) [PDF](#) [Image](#) [Update](#) [Help](#)



[Home/Search](#) [Bookmark](#) [Context](#) [Related](#)

From: umass.edu/abstracts/analysis [\(more\)](#)

From: umass.edu/~avrunin/recent_pubs [\(Enter author homepages\)](#)

Links: [ACM](#)

[\(Enter summary\)](#)

Rate this article: 1 2 3 4 5 (best)

[Comment on this article](#)

Abstract: This paper reports the results of an empirical comparison of several static analysis tools for evaluating properties of concurrent software and also reports the results of our attempts to build predictive models for each of the tools based on program and property characteristics. Although this area seems well suited to empirical investigation, we encountered a number of significant issues that make designing a sound and unbiased study surprisingly difficult. These experiment design issues are... [\(Update\)](#)

Cited by: [More](#)

Atomizer: A Dynamic Atomicity Checker for Multithreaded Programs - Flanagan, Freund (2004) [\(Correct\)](#)

Experimental Evaluation of Verification and... - Brat, Drusinsky.. (2004) [\(Correct\)](#)

Flow Analysis for Verifying Properties of Concurrent Software - Systems Matthew Dwyer (2004) [\(Correct\)](#)

Active bibliography (related documents): [More](#) [All](#)

0.7: An Exploratory Study of Program Metrics as Predictors of... - Chamillard (1995) [\(Correct\)](#)

0.7: Evaluating Deadlock Detection Methods for Concurrent Software - Corbett (1996) [\(Correct\)](#)

0.4: Metrics Measuring Control Flow Complexity in Concurrent Programs - Mathews, Tu [\(Correct\)](#)

Similar documents based on text: [More](#) [All](#)

0.2: An Automatic Object-Oriented Parser Generator for Ada - Carlisle (2000) [\(Correct\)](#)

0.2: Incorporating Learning Styles To Enhance Mechanical... - Beginning In And [\(Correct\)](#)

0.1: On the Localization of Feedforward Networks - Weaver, Baird, Polycarpou [\(Correct\)](#)

Related documents from co-citation: [More](#) [All](#)

21: Evaluating deadlock detection methods for concurrent software - Corbett - 1996

14: Data flow analysis for verifying properties of concurrent programs - Dwyer, Clarke - 1994

12: Automated Analysis of Concurrent Systems with the Constrained Expression Toolset - Avrunin, Buy et al. - 1991

BibTeX entry: [\(Update\)](#)

A. Chamillard. An Empirical Comparison of Static Concurrency Analysis Techniques. PhD thesis, University of Massachusetts at Amherst, May 1996. <http://citeseer.ist.psu.edu/chamillard96empirical.html> [More](#)

```
@misc{ chamillard96empirical,
  author = "A. Chamillard",
  title = "An Empirical Comparison of Static Concurrency Analysis Techniques",
  text = "A. Chamillard. An Empirical Comparison of Static Concurrency Analysis Tech
    PhD thesis, University of Massachusetts at Amherst, May 1996.",
  year = "1996",
  url = "citeseer.ist.psu.edu/chamillard96empirical.html" }
```

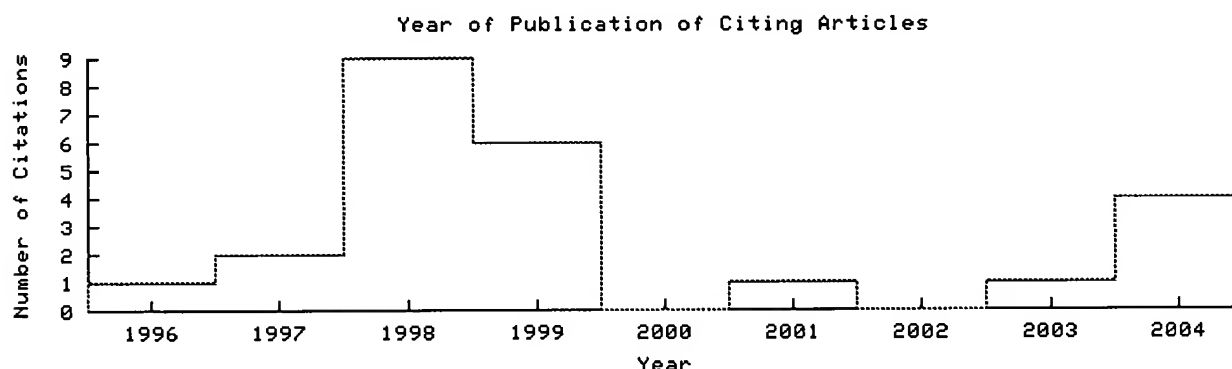
Citations (may not include all citations):

761 Symbolic model checking: 10 20 states and beyond - Burch, Clarke et al. - 1990

584 Kluwer Academic Publishers (context) - McMillan, Checking - 1993

321 volume 92 of Lecture Notes in Computer Science (context) - Milner, of et al. - 1980

- 143 Empirical Methods for Artificial Intelligence (context) - Cohen - 1995 [ACM](#) [DBLP](#)
- 131 Using partial orders for the efficient verification of deadl.. (context) - Godefroid, Wolper - 1991 [ACM](#) [DBLP](#)
- 102 Combining partial order reductions with on-the-fly model che.. (context) - Peled - 1994
- 100 Design and Validation of Computer Protocols (context) - Holzmann - 1991 [ACM](#)
- 84 Data flow analysis for verifying properties of concurrent pr.. - Dwyer, Clarke - 1994 [ACM](#) [DBLP](#)
- 84 Evaluating deadlock detection methods for concurrent softwar.. - Corbett - 1996 [ACM](#) [DBLP](#)
- 74 Applied Linear Statistical Models (context) - Neter, Wasserman et al. - 1985
- 44 Debugging Ada tasking programs (context) - Helmbold, Luckham - 1985
- 42 Issues encountered in building a flexible software developme.. - Kadia - 1992
- 31 Introduction to Linear Regression Analysis (context) - Montgomery, Peck - 1982
- 27 Task interaction graphs for concurrency analysis (context) - Long, Clarke - 1989 [ACM](#) [DBLP](#)
- 25 An empirical comparison of static concurrency analysis techn.. - Chamillard - 1996 [ACM](#)
- 23 Using integer programming to verify general safety and liven.. - Corbett, Avrunin - 1995 [ACM](#) [DBLP](#)
- 12 Applied Nonparametric Statistical Methods (context) - Sprent - 1993
- 9 Concurrent algorithms for real-time memory management (context) - Ford - 1988 [ACM](#)
- 7 Analysis of Ordinal Categorical Data (context) - Agresti - 1984
- 7 An empirical evaluation of three methods for deadlock analys.. - Corbett - 1994 [ACM](#) [DBLP](#)
- 5 Metric-driven reengineering for static concurrency analysis (context) - Levine, Taylor - 1993 [ACM](#) [DBLP](#)
- 4 Static concurrency analysis of Ada programs (context) - Wampler - 1985
- 4 Software complexity and Ada rendezvous: Metrics based on non.. (context) - Damerla, Shatz - 1992
- 3 Automatic derivation of time bounds in uniprocessor concurre.. (context) - Avrunin, Corbett et al. - 1994
- 1 Experimental evaluation in computer science; A quantitative .. (context) - Tichy, Lukowitz et al. - 1995
- 1 Correlated Independent Variables: The Problem of Multicollin.. (context) - Blalock - 1970



The graph only includes citing articles where the year of publication is known.

Documents on the same site (<http://laser.cs.umass.edu/abstracts/analysis.html>): [More](#)

Symbolic Model Checking Using Algebraic Geometry - Avrunin (1996) [\(Correct\)](#)

A Compact Petri Net Representation for Concurrent Programs - Dwyer, Clarke (1994) [\(Correct\)](#)

Improving Static Analysis Accuracy on Concurrent Ada Programs.. - Chamillard (1995) [\(Correct\)](#)

[Online articles have much greater impact](#) [More about CiteSeer.IST](#) [Add search form to your site](#) [Submit documents](#) [Feedback](#)

CiteSeer.IST - Copyright [Penn State](#) and [NEC](#)